

**REMARKS**

Claims 1-20 were pending in the present application and were rejected. Claims 1-3 and 5-20 are herein amended. Claim 4 is herein cancelled without prejudice.

**Oath/Declaration**

The Office Action objects to the Declaration on the grounds that it is defective. It appears that the Declaration erroneously lists the date of the priority document (P-359311) as March 25, 2003. Instead, the date should be listed as March 24, 2003. In order to correct this, Applicants will submit a Supplemental Application Data Sheet. Favorable reconsideration is respectfully requested.

**Applicants' Response Claim Rejections under 35 U.S.C. §112**

**Claims 1-20 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.**

The Office Action identifies a series of informalities with regard to the claims. In response, Applicants herein amend the claims in order to attend to the issues identified by the Examiner, as well as other formalities. Applicants respectfully submit that the revised claims are sufficient to overcome the rejection based on 35 U.S.C. §112, second paragraph. Favorable reconsideration is respectfully requested.

**Applicants' Response to Claim Rejections under 35 U.S.C. §103**

**Claims 1-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ghini et al. (GB 2,228,176).**

It is the position of the Office Action that Ghini discloses the invention as claimed, with the exception of an embodiment including both a movable sensor and an infeed channel. The Office Action states that it would have been obvious to modify Ghini in order to arrive at such an embodiment.

Ghini is directed at a device for removing single cigarettes. Ghini discloses two embodiments. In the first embodiment, illustrated in Figure 1, the cigarettes travel gravitationally in an infeed channel 6 before being packaged in a container 12. As the cigarettes are traveling the channel 6, they pass the sensing means 14, which inspects at least one end of the cigarettes. This sensing means 14 is fixed. The sensing means 14 is illustrated as being formed in a hole 15 in wall 5, but may additionally be formed in a hole in wall 4. Upon detection of a faulty cigarette, the sensing means 14 notifies delay circuit 31, which then notifies pneumatic circuit 27. Pneumatic circuit 27 includes compressed air source 28, pipeline 29 and valve 30. When the pneumatic circuit 27 is informed of a faulty cigarette, compressed air is released and a vacuum is created, thus extracting the faulty cigarette through the extraction duct 17. This is shown in greater detail in Figure 2.

Additionally, in Figure 3, Ghini discloses an alternate embodiment in which cigarettes are disposed in an amassment 33 on a simple deck 34. It is noted that the embodiment of Figure 3 can only be applied for cigarettes collected in cassettes or on a transporting belt where they are

placed in continuous layer. The embodiment of Figure 3 cannot be used within vertical ducts of a packaging machine hopper, such as that illustrated in Figure 1 of Ghini. The cigarettes may travel laterally, or may be stationary. In this embodiment, a sensing means 35 is disposed in block 36. Also within the block 36 is an extraction duct 17 and pipeline 29. The block 36, and thus the sensing means 35 and the extracting duct 17, may move vertically and horizontally according to motors 41 and 45.

In the Office Action, it is alleged that it would have been obvious to modify the first embodiment of Ghini such that movable sensors are used in place of fixed sensors. The Office Action states that this would remove the need to have a fixed sensor in each channel of the infeed chute. Accordingly, the Office Action states that “substitution of movable sensors for the fixed sensors would require only two sensors (one for each side of the channel), which would reduce the complexity of the sensing and detecting structure.” In other words, it appears that the Office Action alleges that it would have been obvious to provide for a slot or window in walls 4 and 5 in place of the sensor hole 15, and to provide for movable sensors which move in a direction perpendicular to the axis of the cigarettes and parallel to the horizontal platform 8 in this slot or window.

In response, Applicants respectfully submit that Ghini does not provide a suggestion or motivation to make such a modification. However, such a modification would still not anticipate the pending claims. Specifically, the proposed modification would result in a system in which movable sensors move in order to inspect the cigarettes. However, such a modification would still include a fixed extraction duct 17 which is disposed at a position below the sensors.

The Office Action does not contemplate a suggestion or motivation to provide for rejection of cigarettes along the trajectory in which the sensors move. As recited by present claim 1, "said detection and rejection of faulty cigarettes takes place along said predetermined trajectory in which said movable sensors reciprocally move." On the other hand, in the modification proposed by the Office Action, the rejection of the cigarettes would occur below the trajectory in which the movable sensors move.

Additionally, Applicants note that in the device of the second embodiment of Ghini, the sensing means 35 scans the cassette content, and transmits the measured results to a processor. The processor then detects circles on the displayed image. The circle image (the content) is compared with the reference image. If necessary, the cigarette rejection system starts up so as to reject the faulty cigarette. On the other hand, in the claimed embodiment, both cigarette ends are simultaneously examined and faulty cigarettes are rejected in one working cycle for the same layer of cigarettes. As a result, many ducts and rows of cigarettes may be examined quickly and efficiently with separate examination of each cigarette. Accordingly, Applicants respectfully submit that Ghini does not disclose or suggest the embodiment as claimed.

Additionally, Applicants herein incorporate the subject matter of dependent claim 4 into claim 1. The Office Action states that "the movable sensor embodiment teaches that the rejecting device (16) is mounted in the same plane as the movable sensor." In other words, the Office Action alleges that the use of the extracting device 16 of the embodiment illustrated in Figure 3 is not separable from the use of a movable sensor. In the device of the second embodiment of Ghini, the sensing means 35 scans the surface where ends of the amassed

cigarettes 33 are placed. Based on this image displayed after scanning, the content of circles captured during scanning is analyzed. In order to reject the faulty cigarettes, the extraction means 16 is positioned at the central point relative to the cigarette ending. Thus, during rejection, it is outside of the trajectory movement path of the sensing means 35. However, in the claimed embodiment, both trajectories of movement paths for the movable sensors and rejecting device 14 are identical.

Furthermore, Applicants respectfully submit that the Office Action's motivation of reducing the number of sensors does not extend to the use of a movable extracting device 16. In such a proposed modification, it is unclear whether a movable extracting device 16 would be in addition to the fixed extraction device illustrated in Figure 1, or a substitute for it. Thus, Applicants respectfully submit that Ghini does not disclose or suggest the embodiment of present claim 1.

Next, Applicants address dependent claim 7. The Office Action alleges that Ghini discloses sensors to inspect the cigarettes located on both walls 4 and 5. However, Applicants respectfully submit that Ghini only discloses providing sensors *alternatively* on wall 4 *or* wall 5. The measurement and rejection of a faulty cigarette in one working cycle of the device is only possible if only one cigarette end is examined. In other words, the extraction means 16 must be positioned on the opposite side of the device, relative to the sensing means 14. On the other hand, in the claimed embodiment, both cigarette ends can be examined. Thus, Applicants respectfully submit that Ghini does not disclose or suggest the embodiment of present claim 7.

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With respect to claim 9, the Office Action acknowledges that Ghini does not disclose the use of a blacklight. However, the Office Action states that Official Notice is taken that use of blacklights is known and old. The Office Action provides no evidence of this. In response, Applicants respectfully submit that they are not aware of the use of such sensor for detecting faulty cigarettes.

Official Notice unsupported by documentary evidence should only be taken where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be “capable of such instant and unquestionable demonstration as to defy dispute” (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

That is, it is not be appropriate for the Office Action to take Official Notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21.

Accordingly, Applicants respectfully traverse the Office Action’s assertion of Official Notice with regard to the features of claim 9. Applicants respectfully demand that the Office

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Action provide documentary evidence in the next Office action, if the rejection is to be maintained, to support the holding of Official Notice concerning the claimed features.

Finally, Applicants address claim 11. The Office Action acknowledges that Ghini does not disclose two pneumatic nozzles placed symmetrically on both sides of the movable sensor. However, the Office Action alleges that this would have been obvious. The Office Action cites *St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833, (7th Cir. 1977) for the notion that “it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.” The Office Action states that such a modification would make sense in order to increase the speed of detecting and rejecting faulting cigarettes. *St. Regis Paper v. Bemis* does not state the law as presented by the Office Action. Instead, the relevant passage of the decision, which deals with bags having multiple layers, states that “the Lokey bag is only entitled to a patent if the fusion of the old elements that comprised the Poppe patent and the old element of multiple layering created a synergistic combination.” In response, Applicants respectfully submit that the fusion of the old elements of the device of Ghini and the use of two pneumatic nozzles placed symmetrically on both sides of the movable sensor results in a “synergistic combination,” providing for efficient detection and disposal of a faulty cigarette when the sensor is moving in either direction. Thus, Applicants respectfully submit that Ghini does not disclose or suggest the embodiments as presently claimed. Favorable reconsideration is respectfully requested.

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**Allowable Subject Matter**

The Office Action indicates that claims 19 and 20 constitute allowable subject matter, and would be allowable if re-written in independent form. However, because Applicants submit that all pending claims are patentable, Applicants respectfully decline to rewrite claims 19 and 20 into independent form at this time.

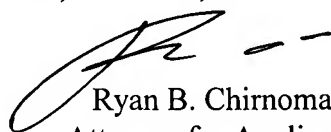
For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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